CITY AUDITOR'S OFFICE



OPERATIONAL AUDIT CITYWIDE PAYROLL PROCESS

Report No. CLV 2000-01

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EXECUTIVE SUMMARY

The City Auditor's Office conducted an operational review of the City's payroll process to determine the accuracy of payroll, the adequacy of internal and system controls related to payroll, and the effectiveness of the current payroll and compensation practices in the City.

We selected and tested the accuracy of payroll transactions including regular paychecks, vacation buyback, and payouts made in conjunction with the recent voluntary early separation program. No significant differences were noted in our testing and we are satisfied that payroll disbursements are being accurately calculated.

Over the past several years, the departments of Finance, Human Resources, and Information Technology have been working diligently to implement the City's new payroll system to enhance the payroll process. During our audit, we identified the need for increased security and control measures surrounding the payroll system. We also identified certain system enhancements that could be made to improve the efficiency of the payroll process. While the City currently has a documented contingency plan, the resources needed for the plan have not yet been coordinated and tested to ensure the plan would work.

Our review indicates that most City employees have been receiving annual cost of living adjustments (COLA) higher than the annual increases of the Consumer Price Index (CPI). Tying COLA to CPI could substantially reduce payroll costs. We recommend that future bargaining agreements stipulate that the annual COLA should correlate with the CPI. In addition, there is a need for improved payroll reports, timely bank reconciliations, as well as closer monitoring of employee sick leave, alternate work schedules, and time in lieu of overtime.

One of the goals in the City's Strategic Plan 2005 is to continue to enhance sustainable services by developing accountable management and supervisory practices. To achieve this goal, performance standards that are quantifiable and measurable should be established. All employees should be held accountable to and evaluated against these standards. The City recently implemented a compensation program for executives and management which incorporates these principles. A component of the annual merit increase for these employees is a bonus for those who exceed established performance standards. We recommend that a similar program be established for all appointive employees, and possibly considered for classified employees. Merit increases and step advancements should not be guaranteed, but rather a reward for good performance.

During the audit, we also identified several areas in which the City could improve its payroll administration. Detailed descriptions of each issue can be found in the "Findings and Recommendations" section of this report.

I. BACKGROUND

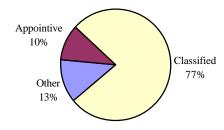
The City's Payroll Operations Center (Payroll) produces more than 2,700 paychecks and direct deposit statements every two weeks. Until recently, only one employee in the Finance Department handled all the payroll transactions. The City's annual payroll budget for fiscal year 2000 is over \$183 million. Payroll relies on information and assistance from Human Resources, Information Technology, and the Treasurer's Office to administer the payroll function.

Responsibility for creating and updating employee records rests with Human Resources (HR). They input information such as job title and deductions for medical coverage, life insurance coverage, union dues, etc. HR also updates employee records with step advancements and merit increases, longevity pay, and cost of living adjustments.

Information Technology (IT) controls the physical and logical security of the employee database and the hardware used for processing and storing payroll information. In addition, the department is responsible for programming and data input into the payroll system from time cards. IT periodically makes modifications to the payroll system to introduce new system functionality or to resolve problems encountered in running payroll.

Payroll also receives assistance from the Treasurer's Office, which is responsible for the distribution of the payroll funds. The Treasurer's staff mail, fax, and with the assistance of IT, electronically transmit payroll data and funds to various financial institutions. They also prepare paychecks and direct deposit statements for employees.

As the chart below shows, City employees fall into one of three categories.



The first category consists of approximately 280 people who are appointive employees serving at the discretion of the City Manager. The second category consists of approximately 2,110 classified employees who are subject to the provisions of the City of Las Vegas Civil Service System and Rules or a collective bargaining agreement. The final category consists of approximately 340 personnel including hourly staff, elected officials, and contract personnel.

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In July 1998, the City replaced its mainframe payroll system with an integrated enterprise-wide software known as Oracle. The City will implement a new time and attendance system within the next calendar year. The new system will eliminate the need for time cards and provide improved labor distribution data.

SIGNIFICANT ACCOMPLISHMENTS

Over the past several years, the departments of Finance, Human Resources, and Information Technology have been working diligently to implement the City's new payroll system.

All three departments are currently involved in the integration of HR/Payroll, Financial, Payable, and Purchasing applications to a standardized database and infrastructure that supports third party software providers. The benefits of implementing the new system include improved ability to extract data in an "ad hoc" fashion and more timely decision support information. Further, the new system allows increased preventive controls with automatic notification when certain changes are made. These improvements have helped the departments improve customer service. In addition, the system increased functionality, security, and contingency provisions for the City.

Human Resources recently introduced an executive and management compensation program with a performance incentive bonus component to replace automatic cost of living increases. HR also initiated an employee career development program known as CDAP to improve performance evaluation. Further, the department administered a voluntary early separation program which will result in cost savings to the City.

In 1997, the City began negotiating four and five-year labor agreements with all employee bargaining units well before the beginning of formal contract negotiations, saving negotiation time over the two-year contract cycle. The City negotiated new entry level steps below the current scale in each of its contracts. Furthermore, Human Resources streamlined the employee Flex Plan enrollment program to improve efficiency and employee service. HR also developed a Passport to Leadership training program for supervisors and managers and worked to reduce the number of disciplinary actions and grievances through intervention, mediation, and organizational development. In addition, the department conducted an employee training seminar that included topics such as performance standards, goals, and expectations in customer service.

By upgrading the hardware and software used for payroll, IT increased the central processing unit, memory, and disk space capacity therefore reducing payroll reporting run times and backup times by at least one-third. In addition, hardware and software upgrades provided offsite contingency, increased testing and development capability, and assisted in a smooth transition into the new year and reduced total costs of software deployment and upgrades.

II. AUDIT OBJECTIVES

This audit was part of the City Auditor's Office annual audit program. Our audit objectives were to:

- a) Determine if payroll disbursements were accurately calculated in accordance with City guidelines;
- b) Assess the adequacy of management controls and identify ways to improve the administration of payroll and employee compensation;
- c) Evaluate whether adequate controls are in place to maintain and safeguard the City's payroll system and payroll data; and
- d) Determine if the City maintains a tested and proven contingency plan to ensure it can pay its employees if the payroll system failed.

III. SCOPE AND METHODOLOGY

We tested and reviewed payroll transactions that occurred during 1999 and early 2000.

During the audit, we:

- Reviewed the City's payroll policies, the civil service rules and various collective bargaining agreements;
- Interviewed pertinent staff and management involved in the payroll process throughout the City;
- Observed payroll operations in the departments of Finance, Information Technology, and Human Resources;
- Analyzed both financial and operational data related to payroll;
- Performed detailed testing of a sample of payroll transactions;
- Evaluated security and access controls surrounding the payroll system; and
- Reviewed and evaluated the use of time cards, various compensation programs, performance evaluation, payroll account reconciliation, and direct deposit.

The recommendations expressed within this report are intended to help management in improving the overall efficiency and effectiveness of City operations.

IV. FINDINGS AND RECOMMENDATIONS

Significant issues identified during our audit are summarized in the following sections. While other issues were identified and discussed with management, they were deemed less significant for reporting purposes.

A. PAYROLL ACCURACY

1. PAYCHECK ACCURACY TESTING

Our audit included testing a sample of City employee paychecks. This testing included recalculating each sample employee's base salary and overtime pay for the selected pay periods. In addition, we confirmed that each sample employee's federal income tax withholdings and health benefits withholdings were in accordance with their respective elections. No significant differences were noted in our testing.

2. VOLUNTARY EARLY SEPARATION PROGRAM

In June 1999, the City offered employees a voluntary early separation program with two options:

Option A – Purchase of two years of service with the Public Employees Retirement System (PERS) up to 30 years of service.

Option B-A cash payment equal to 1.25% of the employee's annual salary times their years of service and payment of the employee's portion of the insurance premiums for 18 months after separation.

In order to be eligible to participate in the program, an employee had to be a classified or appointive City employee with at least five years of service. Certain classified employees were not eligible to participate in the program.

We selected a sample of employees participating in the early separation program and reviewed the accuracy of their final paycheck including any lump-sum payments made in conjunction with the early separation program.

During our testing, management made us aware of certain errors in payments made to employees participating in the early separation program. These errors were primarily due to miscalculations of the required lump sum payments owed to the employees. As of our testing, Human Resources was working to correct the errors.

RECOMMENDATIONS:

i. Human Resources should perform an evaluation of the early separation program and based on the evaluation determine if they achieved their goals and identify areas for improvement for future reference by management when the City offers such programs again.

- ii. Once the early separation program is completed, Human Resources should determine the actual cost savings to the City based on which employees left and the salaries paid to the replacements.
- iii. In subsequent early separation programs, Human Resources should ensure the accuracy of final payments to employees through additional levels of review and re-verification of detailed calculations.

Management Response:

HR agrees with the recommendation regarding evaluation of the Voluntary Separation Program. HR is in the process of working with the Department of Finance & Business Services to compute actual savings costs for those who have left, as well as monitoring the vacancy time for each position to ensure that the savings is what was anticipated. (Target Completion Date: 8/15/00)

The Accounting Division will work with Human Resources to modify this process so that the Payroll Office has sufficient data to verify all components of final payment calculations before releasing payment.

3. VACATION AND SICK LEAVE BUYBACK

The first payday of December each year, the City buys back certain hours of accumulated vacation and sick leave from employees as outlined in City policy and the various collective bargaining agreements. The vacation leave buyback is voluntary, while the sick leave buyback is automatic once an employee has accumulated a certain number of hours.

Our testing noted no differences in a sample of vacation and sick leave hours purchased from employees by the City on the first payday of December 1999. However, we observed the need for improvements in the information provided to employees regarding the programs. For example, each October the City's Payroll Operations Center sends a notification to each employee of the upcoming vacation leave buyback. While this notice includes the employee's total accumulated vacation leave hours as of the payroll period before the notification, additional information regarding an employee's vacation leave hours would be useful to help employees better understand the program and decide whether or not to participate. Further, in conjunction with the first paycheck of December of each year, Payroll sends a notification to each employee of the number of his or her sick leave hours purchased by the City. Additional information would also be useful with this program.

RECOMMENDATION:

The "Annual Leave Exchange Notification Form" and the "Annual Sick Leave Buyback Notice" should be improved by adding a detail rollforward of each employee's leave activity for the year.

Management Response:

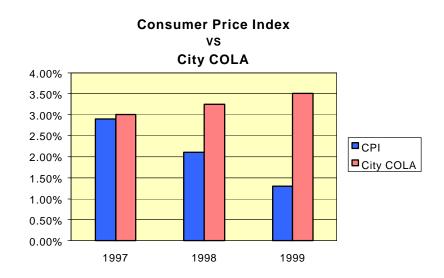
The Accounting Division concurs with the recommendation, and will work with the IT Department to provide the additional leave information in a user-friendly format.

B. PAYROLL MANAGEMENT CONTROL

1. COST OF LIVING ADJUSTMENTS

The purpose of a cost of living adjustment (COLA) should be a salary increase given to employees to maintain their purchasing power. For example, the Mayor and City Council receive an annual COLA based on the index figure of the National Consumer Price Index (CPI). The City of Las Vegas has contracts with three separate bargaining units and each has different COLA rates. COLA increases for these bargaining units are not tied to a nationally recognized inflation index like CPI.

In fact, most City employees have received COLA above the increases in the CPI as shown in the following graph.



It is our understanding that other local governments in the Las Vegas Valley have similar COLA provisions (i.e., COLA higher than CPI) with their employees. COLA payments in excess of CPI have contributed to the escalation of labor costs among local governments. Tying COLA to CPI could have substantial savings to the City.

We recognize that City employee compensation is impacted by how other public and private sectors in the Las Vegas Valley compensate their employees. The City should work with the

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other local entities to keep contractual increases more in-line with the local labor market, and more importantly with our expected revenue growth. If COLA is separated from all other compensation factors such as job market demands and tied in with CPI, the City could then compensate its employees according to their skills and performance instead of granting an across-the-board increase to all employees.

RECOMMENDATION:

The City should tie the cost of living adjustments for all appointive and classified employees to a consumer price index as they do for the Mayor and City Council.

Management Response:

While HR agrees in principle with negotiating the fairest increase possible with regard to our salaries and benefits, under Nevada statute it is not the sole prerogative of the City to tie Cost of Living Adjustments to the Consumer Price Index. In fact, the negotiation process begins with direction from the Mayor and City Council with regard to opening positions the City takes.

(Target Completion Date: At Contract Renewals)

2. PAYROLL REPORTS

During our discussions with various levels of management, they expressed a need for improved and additional payroll reports for monitoring the labor hours and costs of their respective departments. In addition, management is not aware of all of the payroll information and reports that the City's financial system is capable of producing. Certain departments are spending an inordinate amount of time internally creating reports from information on time cards in an attempt to monitor payroll information that should be available to them.

RECOMMENDATIONS:

- i. Payroll staff should seek input from City departments on the types of reports and improvements in current reports needed to appropriately monitor their labor hours and costs.
- ii. Payroll staff should communicate more effectively to City management the payroll information and reports that are currently available.

Management Response:

The Accounting Division is in the process of developing and implementing a new time and attendance / labor distribution system purchased from Tru Trac. This system is scheduled for implementation the first of fiscal year 2001. The implementation team crosses many departments and divisions, whose input will be sought for development of necessary and useful

management reports. This new system will allow departments and divisions to establish work schedules and track hours worked and leave taken against those schedules, as well as track labor distribution costs. This system's database will be fully interfaced with Oracle Financials (Human Resources, Payroll, and General Ledger modules). Accounting will not write reports from the legacy system, but rather will expend that effort on the new Tru Trac system.

3. BANK ACCOUNT RECONCILIATION

The City uses four bank accounts for its payroll functions. Our review indicates three of these accounts are being reconciled on a timely basis by the City's Accounting staff. However, as of December 1999, one account had not been reconciled since June 1999. While the City does not use this account exclusively for the payroll function, it does cut certain payroll checks from this account and transfer funds from the account to other accounts to cover payroll. Delays in completing the reconciliation are primarily due to other demands placed on the Accounting Unit (i.e., system upgrades, new time and attendance system) and the complexity of the account (i.e., number of transactions.)

Without timely bank reconciliation, the City cannot quickly identify outstanding checks and unusual activity. Further, until the reconciliation is current and the City identifies outstanding checks, the City cannot use "positive pay" to help protect the account. Positive pay provides fraud detection that matches cashed City checks against payment information the City provides to the Bank.

RECOMMENDATION:

The Accounting Division should take measures to bring and keep all bank reconciliations current.

Management Response:

All payroll related bank account reconciliations are now up-to-date. Appropriate staffing levels and work assignments are now in place to assure they remain current.

4. TIME IN LIEU OF OVERTIME

The current bargaining agreements allow classified employees the option of accumulating time off rather than receiving overtime pay, up to an established maximum number of hours. The contract defines hours taken in lieu of overtime pay as Time In Lieu Of (TILO). According to the City Employee Association (CEA) agreement, TILO allows "employees to accumulate and to take TILO in conjunction with workload peaks and lows, rather than the City paying the overtime rate." One hour of overtime equals one and a half hours of TILO.

The CEA agreement also states, "to use TILO employees must schedule their absence from work with their supervisor in advance of the absence. Such absences will normally only be scheduled

when the workload will allow the employees to be absent. This means that employees may be denied the use of TILO whenever, in the supervisor's judgment, allowing the employee to use such time will require the City to pay other employees at the overtime rate or accumulate TILO time."

Overtime pay to employees may appear to cost a department more than permitting the accumulation of TILO hours. However, if a department does not effectively manage the TILO hours accumulated by its employees, the future use of these accumulated TILO hours could detrimentally impact operations. If employees are permitted to *accumulate* TILO hours to cover for employees *using* TILO hours, then there is a compounding effect on the number of hours accumulated. Excessive accumulations of TILO hours, like excessive overtime pay, can be an indication of mismanagement. For certain departments, it may be more beneficial to pay employees for overtime rather than allow accumulation of TILO hours.

Some City employees currently believe they are entitled to accumulate and use TILO as they please. Some supervisors are reluctant to deny accumulation or use of TILO despite being permitted to do so under the bargaining agreements. The use of TILO by employees in some departments has caused strains on operations, inefficiencies, and increased overtime pay. In addition, management often looks upon the approval of accumulating TILO as an effective way to save on overtime costs without consideration of the impact on operations. To use TILO effectively, management must only allow its use when fully staffed and in slower operational periods to avoid having to grant additional TILO hours or overtime pay.

RECOMMENDATIONS:

- i. City departments should more effectively budget for and manage the TILO they approve and allow staff to use.
- ii. City departments should more effectively monitor operational trends and only permit use of TILO by their employees when fully staffed and during slower operational periods.
- iii. Human Resources should continue to educate department managers and supervisors on how to appropriately manage TILO.

Management Response:

HR agrees that City departments should more effectively manage their TILO authorization and usage. In fact, we are in the process of developing supervisory training materials to remind managers and supervisors of their responsibility in this regard. TILO is a benefit offered and can be managed successfully and effectively if the departments understand the implications and are held accountable for their use of TILO. It is our goal to follow the audit recommendations and both monitor the trends and further develop good educational programs in this area.

5. ALTERNATE WORK SCHEDULES

Some City employees work "alternate work schedules" which are hours outside of 8:00 a.m. to 5:00 p.m. five days a week. While alternate work schedules are necessary for employees such as firefighters and detention and enforcement personnel, management permits other employees to work alternate work schedules to accommodate various personal preferences and situations. The CEA Contract permits the City Manager to discontinue the alternate work schedules of employees if, "in good faith, and after discussions with the employees, the City Manager determines that the alternate work schedule program is not in the best interest of the City."

Discussions with department directors indicated that certain employees who work alternate work schedules are taking advantage of their working arrangements and not working their fully scheduled hours. Considering the supervisors of employees working alternate work schedules often are not present when these employees report to or leave from work, there are opportunities for these employees to "take advantage" of the situation and arrive late, take extended lunch hours, or leave early. As a result, resentment towards employees working alternate work schedules arises from other co-workers observing their fellow employees "taking advantage" of the circumstances or receiving what they believe is preferential treatment from management.

RECOMMENDATIONS:

- i. Management in all departments should more closely monitor the performance of staff on alternate work schedules and hold them accountable for their scheduled work hours.
- ii. Management should consider posting employee work schedules, including lunch breaks to deter employees from deviating from their established work hours.
- iii. Management in all departments should consider requiring employees to wave their access cards over specific controlled access door monitors on all arrivals and departures from work.
- iv. Management should periodically request and review reports from Detention and Enforcement showing times when employees entered through controlled access doors with their City access cards and use the reports as support for disciplinary measures when needed.
- v. Department directors should monitor the alternate work schedules of employees within their department and discontinue any schedules that are not in the best interest of the City, department, or customers.

Management Response:

HR strongly agrees that alternate work schedules should only be considered in work units where it makes good business sense for that schedule to be in place. There has been a considerable amount of discussion regarding the use of alternate work schedules and whether they currently are effective. In addition, there is some question as to whether this subject is

covered under the contract and what level of negotiation is required prior to the elimination of any current alternate work schedule. With the new time and attendance system, we will be able to monitor when employees are arriving for work. We fully support the second phase of implementation which includes an automated sign-in and sign-out that uses our proximity cards for attendance purposes.

HR does not believe that Recommendation ii., with regard to posting work schedules, necessarily will help with this problem and may, in fact, add unnecessary work and cause undue controversy with employees.

6. SICK LEAVE POLICY AND MONITORING

Full-time City employees accrue sick leave hours bi-weekly. Some City directors are struggling with how to appropriately identify, substantiate, and discipline for abuse of sick leave by their employees. In addition, they believe the benefit of trying to substantiate and discipline for sick leave abuse is not worth the cost.

The current CEA contract states "supervisors may not discipline an employee in the absence of evidence that the employee is abusing sick leave" and "the use of sick leave shall not be a basis for downgrading an employee's performance evaluation in the absence of an actual determination that the employee's use of sick leave has, in fact, been abusive." Under the contract, the City may require employees to produce "appropriate documents to justify the employee's absence, such as evidence of having consulted a physician, a certificate from a treating physician, or the production of medical records to be made available to a City designated physician for review." However, management rarely takes the aforementioned steps and in some departments, customer service is suffering as a result.

While there is currently a monetary incentive for classified employees who have taken no more than 30 hours of sick leave during a year, the enticement does not seem to be enough to discourage staff members from taking sick leave. The extra days off appear to be more highly valued.

RECOMMENDATIONS:

- i. Human Resources should provide improved direction to departments on how to appropriately substantiate, document, and discipline for instances of sick leave abuse.
- ii. Management at all levels in the City should monitor the sick leave of their employees more closely. Management should make their employees aware of this monitoring and pursue disciplinary measures where evidence of abuse exists.
- iii. The City should re-evaluate the sick leave cash incentive program and consider alternative incentives that may be more successful in discouraging sick leave abuse.

Management Response:

The most recent collective bargaining agreement with the CEA clearly gives managers the right to discipline for abuse of sick leave. This was a new section which clarified this right of management. HR believes there is sufficient ability currently under the contract for managers and supervisors to address the issue of abusive sick leave. Human Resources would be happy to provide additional training to what has already been an extensive training program so that we can help managers to reach this goal.

The subject of the monetary incentive is one that we would gladly reconsider at the bargaining table should we receive the direction of Council to do so in the next negotiation period.

C. PAY FOR PERFORMANCE

One of the goals of City management as outlined in the City of Las Vegas Strategic Plan 2005 is to continue to enhance sustainable services by developing "accountable management and supervisory practices". Two of the strategies by which management intends to achieve this goal are as follows:

- i. Modify appointive and classified evaluation processes to include more accountability and establish pay for performance compensation systems when possible; and
- ii. Pursue collective bargaining agreements that reward performance.

The following discussions of issues and recommendations regarding pay for performance will help the City achieve its goals.

1. EXECUTIVE AND MANAGEMENT COMPENSATION PROGRAM

The City has an Executive and Management Compensation Program for those employees at or above the divisional manager level. The City established the compensation program in 1998 to "encourage its leaders to meet performance expectations, as well as achieve individual goals and objectives that increase personal and professional development."

The program policy states "there should be a focus on goals that are measurable in quantitative and qualitative terms." *Merit* increases for these employees are based on the attainment of mutually agreed goals in the following areas:

- Developing and Managing People
- Task / Project Management
- Critical Thinking / Problem Solving
- Communication
- Customer Service
- Community Involvement

Further, the program bases bonuses on the accomplishments of an employee in areas known as

"delegated objectives." The employee's supervisor identifies the delegated objectives without input from the employee. Discussions with Human Resources personnel who oversee the Executive and Management Compensation Program, revealed the following issues regarding the program:

- Quantifiably measuring the performance of managers and executives is difficult considering many departments do not have formal measurable and quantifiable standards established for employees.
- The roles of the directors in the City's strategic plan are not always clearly defined, communicated, and documented.
- Goals established by supervisors do not always correlate to the City's strategic plan and are often subjective and not "measurable in quantitative and qualitative terms."
- Directors are not always held accountable for establishing goals that coincide with the City's strategic plan and that are "measurable in quantitative and qualitative terms."

RECOMMENDATIONS:

- i. City Managers, as well as management down the chain of command should establish performance measures for their employees a) which are measurable in both quantitative and qualitative terms; b) that coincide with the City's strategic plan; and c) to which they are held accountable.
- ii. Human Resources should establish standards for performance measures and monitor the program.

Management Response:

The goal of the executive and management compensation plans has been to develop a system whereby managers and directors are compensated on the basis of their performance and that performance is directly linked to the Strategic Plan which Council establishes. We have had modest success in the initial phases of this process and look forward to continuing to work with the City Manager to establish more clearly measurable performance standards and methods of monitoring these programs. (Target Completion Date: 7/31/00)

2. INCENTIVE COMPENSATION FOR APPOINTIVE EMPLOYEES

The current compensation package for most appointive employees includes merit increases. These employees are eligible for merit increases on their employment anniversary date based on management's assessment of their work performance over the past year. However, their base salaries must remain within the established ranges of their respective salary schedules.

With the current system, directors find it challenging to monitor and stay within the budgetary guidelines for merit increases. The guidelines direct them to keep the merit increases within an established percentage as opposed to a fixed dollar amount. Further, employee evaluations take

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place throughout the year on each employee's employment anniversary date as opposed to all at once. This makes it difficult for directors to compare and contrast the performance of their appointive employees and award them merit increases accordingly.

Many organizations are finding that compensation programs, which include bonuses, are helpful to an organization in achieving its objectives. Certain appointive City employees are no longer eligible for merit increases due to having "topped out" in the salary range of their position. Under the current compensation program, management is limited in rewarding these employees monetarily for good performance.

The City recently added a bonus component to the compensation program for executives and management. With the implementation of a similar program for all appointive employees, the City could enhance the ability of its management to reward its employees, promote improved performance and at the same time, more effectively manage its fixed salary costs.

RECOMMENDATIONS:

- i. Finance should communicate to department directors a fixed dollar amount each year for the merit increases for all of their appointive employees.
- ii. The City should consider adopting the practice of granting merit increases at the same time once a year for all appointive employees.
- iii. City management should consider adding a bonus component based on clearly defined performance requirements to the compensation program for all appointive employees.

Management Response:

The theory behind the compensation systems is that the top of the range is the top of the market for that job and to exceed that would put our compensation system out of line with this principle. We would heartily support moving toward a bonus component as long as it does not become an add on to the generous increases employees receive each year. For example, executive and management employees do not have the opportunity to receive automatic COLAs in addition to their opportunity for merits and bonuses.

We agree with the finding that a fixed dollar amount for each department to use for appointive merit increases is a better management tool and that moving toward a once a year review period for appointive employees will help departments to better manage and measure their merit awards.

3. SALARY STEP ADVANCEMENTS FOR CLASSIFIED EMPLOYEES

Under the current City Employee Association labor contract, classified employees receive salary step advancements:

- a) Each anniversary date of their appointment to the City and annually thereafter until the maximum step is reached in their classification.
- b) Unless the City can show legitimate reason for denial of the salary step advancement.

There are between seven and nine step advancements available to classified employees depending on their job grade/classification. After completing all of the available step advancements within a classification, an employee "tops out" and is only eligible for additional step advancements if granted a promotion.

Salary step advancements are generally guaranteed for the City's classified employees regardless of their performance. Last fiscal year, less than one percent of eligible classified City employees were denied their step advancement. These denials were primarily due to extreme cases of absenteeism or lack of required certification. Considering salary step advancements are looked upon as automatic by employees rather than as a reward for quality performance, the "threat" of management denying a salary step advancement is currently not effective in motivating employees.

A legitimate reason to deny salary step advancements per the CEA contract includes "three documented and substantial reports of unsatisfactory performance." However, "substantial unsatisfactory performance" is not clearly defined for management and no clear guidance on how to document such performance exists. For that matter, many of the City's departments do not have established performance standards against which to hold employees accountable. Discussions with directors revealed that many believe the threshold for denying salary step advancement to an employee is too high. In addition, they believe the effort required to meet the current threshold for withholding salary step advancements from an employee outweighs the benefit. Still other directors were unclear as to when they can appropriately deny salary step advancements.

RECOMMENDATIONS:

- i. Human Resources should work with City departments to clearly define performance standards for all employees.
- ii. Human Resources should establish policies outlining how often management should evaluate classified employees against the performance standards and how to document unsatisfactory performance.
- iii. When the City renegotiates the collective bargaining agreements, management should ensure that the agreements more clearly define when supervisors can deny salary step advancements and what documentation is required to support the denial.

Management Response:

HR agrees that some managers and supervisors may not adequately document unsatisfactory performance so that a salary step increase may be denied when it is appropriate. We have established several leadership and supervisory programs to help managers better document performance and manage their employees. We look forward to continuing to work with managers and supervisors to accomplish this goal.

There are several ways the Career Development Action Plan can be utilized to support the management of performance. It is designed to indicate to employees the steps they need to take to improve their performance so that absent that performance, the manager can move to the disciplinary process and can readily provide the documentation needed to substantiate a denial of a step increase. There may be a need for more firm guidance from department directors to instruct their managers to follow this process and then support for their supervisors when they make these decisions.

It is our goal to take the third recommendation regarding our collective bargaining agreements a step further in an attempt to negotiate that step increases be based on merit rather than an automatic fixed amount based on years of service. With the support of Council, we hope to be successful in that matter.

4. CAREER DEVELOPMENT ACTION PLAN

The City's current performance evaluation and career development program includes the use of the "Career Development Action Plan (CDAP)" form which supervisors use to identify and evaluate the strengths, development needs, and goals of classified and most appointive employees. On or near each employee's employment anniversary date, a supervisor meets with the employee to develop an "action plan" for the coming year. At the end of the year, the supervisor revisits the "action plan" and evaluates the employee's accomplishments over the past year.

Department directors and other management voiced the following criticisms of the CDAP program and forms during our discussions with them:

- The CDAP often does not include specific quantifiable and measurable performance standards by which one can hold employees accountable in their daily activities, but rather general career development goals. There is often no direct tie-in to the goals of the supervisor or the department. Therefore, the CDAP form can be useful for the career development of an employee, but not as a performance evaluation tool.
- Supervisors and employees are not periodically revisiting the goals and performance standards on the CDAP throughout the year.
- While there is evidence of a correlation between the CDAP program and merit increases for appointive employees (i.e., addendum to the "12-Month Follow Up Report for Appointive Employees" in which the supervisor must provide a specific recommended merit increase percentage), there is not a similar correlation between the CDAP program and salary step

- advancements for classified employees. In addition, there is a lack of correlation with the progressive discipline program.
- Many "CDAP 12-Month Follow-up Reports" are filled with positive comments, but lack constructive feedback on unsatisfactory performance due to the hesitancy of supervisors to be confrontational.
- Unsatisfactory performance of a classified employee as documented on a CDAP form and the corresponding "Follow-up Report" would not be sufficient documentation to support a denial of step advancement.

RECOMMENDATIONS:

- i. The City's Human Resource policies should more clearly define and outline in future collective bargaining agreements the correlation between the CDAP program, the progressive discipline program, and salary step advancements for classified employees.
- ii. Human Resources should consider establishing a true performance evaluation program for all appointive and classified employees in conjunction with the CDAP and progressive discipline programs.
- iii. Human Resources should encourage City departments to fully document performance standards for their employees and assure they correlate to the goals of the supervisors and the department, as well as the strategic plan of the City.
- iv. City management should clarify how to document instances of unsatisfactory performance.
- v. City management should hold managers and supervisors accountable in their annual evaluations for properly documenting instances of unsatisfactory performance by their employees.

Management Response:

HR agrees with some of the criticisms offered with regard to the use of the CDAP; however, we find that most of these criticisms refer back to supervisors who have not properly utilized the instrument or have not taken the time to follow the directions offered in the training programs with regard to the use of the CDAP. Any method of evaluation or performance measurement finds its success or failure on the front lines as managers take the steps to utilize them appropriately. We would be glad to work with departments in our ongoing training programs to help them to understand how they can utilize the instrument.

D. PAYROLL ADMINISTRATION

1. HEALTH CARE DEDUCTIONS

Employees who pay for health insurance have two deduction options. They can either elect to deduct their premiums from their pay on a pre-tax or post-tax basis. However, the option is not noted on the healthcare enrollment form, but rather on the flex plan enrollment form causing confusion to employees who do not need a flex plan deduction. In October 1999, 251 (19%) of the 1,345 employees who paid healthcare premiums did not take advantage of the pre-tax deduction. Electing the pre-tax deduction can decrease an employee's taxable income between \$945 and \$2,080. As such, the pre-tax deduction can save an employee in the 28% tax bracket up to \$582 per year. Some employees we spoke with were unaware of the tax advantages of the pre-tax deduction and on hearing of the benefit changed their deduction option. Employees can only change their deduction options before the beginning of the calendar year or after certain qualifying events such as a marriage, birth of a child, etc.

RECOMMENDATIONS:

- i. Human Resources should place the option for pre-tax or post-tax medical premium deductions on the enrollment form for health insurance.
- ii. Human Resources should communicate the advantages of the pre-tax deduction to employees currently with a post-tax medical insurance premium deduction.
- iii. Human Resources should consider making the pre-tax deduction the default option for medical insurance premiums.

Management Response:

Until January 1, 2000, we were unable to combine the health plan paperwork with the flex plan paperwork, since the health plan renewal date was July 1, and the flex plan renewal was as of January 1. During this open enrollment period, employees were educated in the benefits of Flex 125 contributions. However, as of January 1, 2000, the health plan renewal date has been moved to January 1, annually, thus allowing the open enrollment period for each plan to coincide. In addition, as of January 1, 2000, Human Resources instituted a negative election process, eliminating the need for annual flex plan enrollments. Those employees who elected to pay their healthcare premiums on a pre-tax basis in the November/December 1999 enrollment process, will not have to file any future election forms. Their premiums will continue to be deducted on a pre-tax basis until they notify Human Resources of their desire to change, or until termination. IRS guidelines allow such an election only during an open enrollment period, or following a change in coverage.

Human Resources currently asks new employees to sign a separate flexible benefit form at the same time they enroll in the healthcare plan. The benefits of the flex plan are explained to them in detail during a one and half-hour long benefits orientation meeting. For those current employees who add new coverage (i.e., new dependent coverage or various voluntary coverages), the flex plan is again discussed with them at the time of enrollment in the healthcare plan.

IRS guidelines indicate that while an employer may continue a pre-tax election once an employee has elected that option, initial signed participation forms are recommended. In addition, some employees, even after having the benefits explained to them, have still opted not to have their deductions on a pre-tax basis. Therefore, the policy has been that only those employees who have signed an enrollment form may participate in the pre-tax deduction program. In November 2000, during the open enrollment period, those eligible employees not currently participating will again be provided with information regarding the advantages of pre-tax deductions and the election forms with which to elect such deductions.

2. REPORTING OF SICK LEAVE AND VACATION HOURS

Before the City implemented Oracle, vacation and sick leave information appeared on the direct deposit statements and paycheck stubs. Finance currently prints a separate leave slip biweekly for each employee. According to IT, the information on the leave slip could fit on the statements and check stubs thereby providing more timely information to employees and saving the City both time and money

RECOMMENDATION:

Finance should work with IT to print accrued vacation and sick leave hours on the direct deposit statements and paycheck stubs.

Management Response:

During the time the checks were developed, the IT resource could not determine a way to fit all required information onto the paycheck stub. There have been no changes in the information requested on the stub. To date, there is more information communicated to the payee with the combined media, than there was on the original pay advices. IT will work with the Payroll function to determine what information can be sacrificed to accommodate only one media, or discuss a possible change to the media type. The IT resource was referring to the fact that one media could be made to work, if adjustments were made to the amount of information presented. (Target Completion Date: July, 2000)

The Accounting Division is unaware that additional space is available on the payroll stub to report leave information without giving up existing reported data. In fact, the current pay stubs are more informative than they have ever been. Nonetheless, the Accounting Division will work with the IT Department to include as much leave information as is practical on the check/deposit stubs.

3. PROCEDURES DOCUMENTATION

The Treasurer's Office has a member of its staff assigned responsibility for sorting and

distributing paychecks and direct deposit statements. In instances when the staff member was absent, other employees were uncertain of the appropriate procedures to follow and errors occurred. The Office does not currently have procedures outlining how to appropriately sort and distribute paychecks and statements. The Treasurer's Office has delayed documenting many of their procedures due to the time required to do so and the expectation of new software and changing procedures in the near future.

RECOMMENDATION:

The Treasurer's Office should develop procedures for all processes overseen by the Office.

Management Response:

The Treasurer's Office will implement measures to minimize check distribution errors, but full process documentation is not deemed cost effective at this time. Finance & Business Services will be moving to full Automated Clearing House (ACH) processing of all payroll direct deposits. Once the ACH direct deposit is initiated, Finance & Business Services Department will be proposing a change to our distribution process for payroll checks and direct deposit advices. The ACH direct deposit capability is a necessary component of this proposed change in distribution. This proposal will eliminate the manual sorting, routing, and distribution of these items altogether, and eliminate the need for distribution procedures.

4. PAYROLL INQUIRY LOG

The Payroll Operations Center receives payroll related inquiries primarily through phone calls. The volume is typically quite high on payday. Payroll does not currently document the nature of the questions they receive. Without logging the inquiries, Payroll could have a difficult time communicating the impact of an issue such as missing information, errors in checks, pay statements, or reporting time. An inquiry log would allow management to quantify the amount of time it takes to respond to phone calls and the information gathered could help justify additional personnel in the future. The log should track information such as the caller, date, time, purpose of each inquiry, and how the staff resolved the issue.

RECOMMENDATION:

Payroll should maintain an inquiry log and use the information to support action to resolve payroll related issues.

Management Response:

The Accounting Division agrees that maintaining payroll inquiry statistics by category or type would be useful data. We do not believe logging the caller, date, and time would necessarily add to the usefulness of the data, but would rather take time away from more useful tasks.

5. SORTING OF PAYCHECKS AND PAY STATEMENTS

Currently, paychecks are printed in the Treasurer's Office. During our audit, the paychecks printed in alphabetical order and three people had to spend forty-five minutes each to sort the checks into departments and then division. Direct deposit statements are printed in the Information Technology department in the order of classification, department, and division. Sorting these documents added an additional half hour to the payroll process.

RECOMMENDATION:

IT should program the payroll system to print paychecks and direct deposit statements by department and division for the Treasurer's Office.

Management Response:

The situation noted was a one-time anomaly brought on by a vendor-mandated "patch", or upgrade to the Payroll module. The order of sort was abnormal for the print process. The problem was addressed and corrected in due course. The normal sort order is as stated in the recommendation.

The IT Department has corrected this problem, which was an isolated occurrence due to a system patch installation.

6. DIRECT DEPOSIT AND ELECTRONIC FUND TRANSFERS

Direct deposit is a more cost efficient method of paying payroll than printing and distributing checks. However, the City pays 30% of its employees by check. Oracle is currently not setup to offer the transfer of payroll funds from the City's payroll account to any financial institution of an employee's choice using an Automated Clearing House (ACH). The cost of printing checks includes the costs of sorting the checks and pay statements, the costs of positive pay, the cost of resolving lost, stolen, altered or forged checks, and lost work from employees when they cash their checks during work hours. Further, the enrollment forms for direct deposit are not currently available on the City's Intranet to facilitate enrollment in direct deposit. The lack of ACH and easy access to enrollment forms prevent some employees from participating in direct deposit. Encouragement for employees to utilize direct deposit could include providing direct deposit employees earlier access to their funds. Payroll checks cause employees as well as the City to lose time and money.

Approximately a dozen third-party payroll related checks are printed biweekly from the Accounts Payable system. Without Electronic Funds Transfer (EFT), the City must manually distribute the aforementioned checks. With EFT, the City would enjoy the same benefits direct deposit provides. In addition, Finance and Business Services could offer all their vendors who do business with the City EFT, saving the cost of printing and mailing checks and decreasing the risk of fraudulent checks. The Federal Government, IRS, and Social Security Office performed

studies of the cost of creating and sending checks versus transferring funds electronically and have come to realize cost savings. IT is evaluating e-commerce to make transactions between the residents and the City more efficient for both parties.

RECOMMENDATIONS:

- i. The City should implement ACH thereby allowing employees to receive their pay through direct deposit at the financial institution of their choice.
- ii. Payroll should make the direct deposit forms available on the City's intranet.
- iii. The City should encourage more employees to receive their paychecks via direct deposit.
- iv. Finance should make efforts to increase the number of EFT payments.

Management Response:

Finance & Business Services will be moving to full Automated Clearing House (ACH) processing of all payroll direct deposits. This is a capability provided within the Oracle Payroll module, but limited resources to convert the existing legacy direct deposit process have delayed implementation. Implementation is targeted for October 31, 2000. The ACH direct deposits will expand direct deposit service to virtually any bank requested by an employee. The Accounting Division will use all means possible to simplify enrolment, including making forms available on the intranet. A direct deposit campaign will be initiated to educate employees on the benefits of direct deposit, as well as the significant cost savings to the City.

Regarding vendor and third-party EFTs, the City's Strategic Plan 2005 identifies electronic commerce as a strategy towards improved fiscal responsibility. Plans are currently being formulated in conjunction with the IT Department for implementation in fiscal year 2001.

7. SIGNED BLANK CHECKS

The City prints the payroll checks in the Treasurer's Office. Every payroll run a check is created that does not have a payee, amount, or check number; however, the document does include the proper signatures. The Treasurer's Office previously shredded the check but is now retaining it. Information Technology was unaware of the problem.

RECOMMENDATIONS:

- i. IT should review and correct the program to prevent the blank check from printing.
- ii. Until IT can stop the payroll system from printing an extra check, the Treasurer's Office should void and account for all extra payroll checks.
- iii. The Treasurer's Office should communicate all payroll system problems to Information Technology when they occur and follow the issues to their resolution.

Management Response:

It appears that the problem is data-related. IT will coordinate with the Treasurer and the Payroll functions to determine the nature of the issue, and plan a corrective action. (Target Completion Date: September, 2000)

The Treasurer's Office is currently accounting for and voiding all extra payroll checks. Furthermore, the Treasurer's Office will document all payroll check and direct deposit problems, as well as the communication of the same to both the IT Department and the Accounting Division. The Treasurer's Office will follow-up and document all problem resolutions.

E. PAYROLL SYSTEM SECURITY AND CONTROLS

1. CHANGE CONTROL

Change control is the process of managing and controlling security, access, and application changes to ensure the integrity of an application. During our audit, we identified instances where change control procedures were not followed. In these instances, changes to the payroll system were not tested before placing them into production. As a result of these changes, the Treasurer's Office had to destroy and reprint hundreds of checks.

While IT may have planned to make the aforementioned changes, they did not communicate their intentions to the Treasurer's Office. Had the Treasurer's Office known about these changes, they could have monitored the check printing immediately after the changes were implemented.

RECOMMENDATIONS:

- i. IT should monitor change control and ensure change control procedures are followed.
- ii. IT should have system changes and upgrades tested before installing them on a production system.
- iii. Before implementing any changes or upgrades, IT should communicate the changes to the affected user community.

Management Response:

i. IT is focusing on organizational realignment to ensure consistency throughout the department and reduce the risk of unauthorized system changes. IT has an active change control process for any changes in the Oracle environment including the check printing process. The process includes a requirement for an approval of any change by all module coordinators. This includes an individual from Payroll. Unfortunately, no change control process can prevent someone with proper access authorization from making an unapproved change. There have been very few instances where an unapproved change has

been made and in each case the individual making the change was called to task. In addition to these safeguards, the system has alert messages and "About this record" features that provide information on changes made to the modules.

- ii. All changes must be accomplished in the Burn or Test instance before being applied to the "live" system. As stated earlier, there is no way to prevent someone from making a change without using the correct change control process. If untested changes are being made, the people making those changes are in violation of change control procedure. As stated above, Oracle uses alerts and other features that tell when changes are made and who is making them. A test environment will be established for the JetForms environment. (Target Completion Date: September, 2000)
- iii. Every change that goes through change control is communicated to and must be approved by every module coordinator. It is then up to that coordinator to notify those that could be affected by the change. Also, IT will initiate the change control string where infrastructure changes are required.

2. ACCESS CONTROL

Oracle designed its applications to allow access based on user responsibility. The responsibility titled CLV PR Manager, for example, includes eight City employees who can run payroll, modify employee records, and perform a variety of other tasks. Our review indicates that some of these employees do not need this access to perform their daily work. Inappropriate access provides employees the capability to modify the system.

The City uses an access request form to obtain the required information and approvals before granting and changing access of an employee to the system. The system administrator should grant changes in access based on the document. However, the administrator has periodically made changes based on verbal communication. Granting access without the necessary signatures decreases system security and accountability.

An access violation on the production system can be an indication of possible security issues. With a system accessible from many locations, security becomes a high concern and the system administrator should be aware of violations in a timely manner. While the system administrator currently reviews logs documenting access attempts on a weekly basis, the City does not have procedures requiring immediate notification of the system administrator when there have been numerous access attempts on the production system. Not reviewing access violations quickly decreases the ability to address possible security threats.

RECOMMENDATIONS:

- i. The data "owners" of the Oracle modules should work with IT to review the appropriateness of access responsibilities of employees on a quarterly basis.
- ii. Information Technology should authenticate users by obtaining proper forms and signatures

before granting or changing access to City systems.

iii. The System Administrator should be notified by pager, email, or other method if a user fails to gain access to the system after a certain number of attempts. In addition, the system administrator should review system access logs daily.

Management Response:

- i. IT has given the data "owners" the capability to run the "Users of a Responsibility" report at any time. This report provides information on which users have which responsibility. IT agrees that the data "owner" and IT should run that report for each sensitive responsibility at least quarterly for detective purposes.
 - The Accounting Division has recently reviewed our system responsibilities and has made access restrictions. Finance & Business Services will continue to perform quarterly reviews of our system access and responsibility to ensure that the assignments are current.
- ii. IT has allowed each of the Module Coordinators to request additional responsibilities for their module via Electronic Mail and voice identification. The Electronic Mail messages, the method used for most of the changes, are retained and can be reviewed at any time by anyone needing to validate accesses. There are only four people who are allowed to request these additional accesses. These responsibility changes happen frequently and are generally based on operational needs. To require a form be submitted for each of these requests is unnecessary and would slow down what is now an efficient process.
- iii. IT agrees that it is important to detect and take action, when appropriate, on invalid access attempts. Since the system administrators are not on duty 24 by 7, it would not be feasible to notify them of every failed access attempt. If the notification was via email, a failed access attempt that occurred after hours would not be discovered until the next work day. If the attempt is a break-in, the delay would be unacceptable. Pager notification would be very expensive, since the City has a number of different platforms and each has an administrator. The solution would require several system administrators be given pagers and subsequently be paid on call pay 24 by 7. Since most of the failed access attempts are user error or expired passwords, this solution would not be cost effective. As an alternative, IT is trying to get the current Computer Operators job description reclassified to allow them to accomplish some of these functions. The Computer Operators, who are 24 by 7, would be tasked with reviewing logs and doing an initial analysis for any failed access attempts. If it is felt that the attempt requires further actions, the operator will contact the appropriate system administrator. reclassification is not approved then IT will look into other solutions.

3. CONTINGENCY PLANNING

Contingency planning requires a thorough risk analysis, extensive planning, and detailed procedures to mitigate interruptions in normal operations. In addition, it provides alternatives to

address operations during a business disruption. Finance, like other City departments, has a documented payroll process contingency plan. However, as part of their contingency plan, they expect IT to setup and provide support for the off-site payroll processing in case of a catastrophic event. While Finance has a documented contingency plan, they have not met with IT to communicate their specific requirements. Thus, IT is not fully aware of the needs of Finance and therefore not able to act accordingly.

In its contingency plan, Finance lists software, check stock, and other supplies needed off-site to process payroll. Yet, the City has not purchased additional supplies for contingency purposes or stored any items off-site. As a result, Finance could experience extended delays in processing payroll if its normal operations are interrupted.

The City pays its employees approximately one week after the completion of the pay period. This practice places the payroll process on a tight deadline in which a disruption of one day could cause a delay in disbursing payroll. In many organizations, employees are paid two weeks after the conclusion of the pay period. Finance states in its contingency plan, "an unplanned disruption of even one day during payroll week could result in payroll going out late," and "create mass hysteria with employees" for this could cause inconvenience to the employees who expect to receive their pay on time.

RECOMMENDATIONS:

- i. Finance should meet with IT to address their payroll contingency needs.
- ii. Finance should ensure that all necessary software and supplies for the payroll contingency plan are stored securely off-site.
- iii. Finance should consider paying employees two weeks instead of one week after the pay period to alleviate the tight deadline for processing payroll.
- iv. IT should work with City management to develop a contingency committee to review, evaluate, test, and update contingency plans.

Management Response:

- i. IT was the catalyst for the development of every Department's Contingency Plans and has all of them on file. IT's responsibility is to provide the information resources for every critical application for every Department. IT has taken steps to provide alternate contingency processing for all critical city applications and has an IT Contingency Plan in place that includes Payroll.
 - Finance & Business Services Department has met with the IT Department to develop contingency plans. A department representative has been identified to continue the contingency planning efforts with IT on the Contingency Task Force.

- ii. Finance concurs that some supplies, which cannot be procured with same-day turn around, such as pre-printed check stock, will be necessary for off-site storage. However, other supplies and equipment that could be acquired quickly do not necessitate off-site storage. Finance & Business Services will discuss these issues with IT as part of its on-going contingency planning.
- iii. The Finance & Business Services Department does not concur that payroll processing should be delayed longer to provide a deadline cushion. Rather, Finance believes that ways to accelerate the processing should be explored to provide the needed cushion, such as will be provided by the new Tru Trac time and attendance, labor distribution system.
- iv. IT is currently in the process of creating a Contingency Task Force that will provide training to City employees, ensure contingency plans are adequate, and ensure that plans are tested and maintained. A draft charter has been made for this group and recommendations are being made to senior management on representation.

4. SIGNATURE SECURITY

IT controls the check forms software known as JetForms. JetForms is a software package that contains the form elements of a check, including the signatures of the City Treasurer and the Finance Director. During each payroll run, the system merges data with the form to create the payroll checks and pay advices. IT currently has the ability to print checks with signatures since the signatures are embedded in the software. However, due to the lack of separation of duties and by having access to the check signatures, an IT employee could print a check without Finance's knowledge.

RECOMMENDATION:

IT should work with Finance to develop a cost-efficient solution where the signatures for City checks are stored in the Treasurer's Office.

Management Response:

The Jetforms process includes a file that maintains the signatures of the City Treasurer and the Finance and Business Services Director. This file is merged with the payroll processing information whenever a check run is made. Although access to the file is protected, it is conceivable that a System Administrator, because of their privileges, could run a check outside the process. This vulnerability exists in any system, due to the accesses that a System Administrator must have to accomplish their assigned duties. The System Administrator would have to have access to both the Jetforms process and the check printing processes in Oracle and would have to know how to generate a check. It would be difficult for even a System Administrator to generate a check with no ones knowledge. Additional security exists in the

fact that checks require special ink cartridges and the printer with that cartridge is in a Finance controlled area. But to provide additional security, IT recommends that the Jetform process be secured and that the Finance Department "kickoff" the process without IT's involvement. Although this would not eliminate the vulnerability it would lessen the number of people that could generate checks. (Target Completion Date: April, 2000)

The Treasurer's Office will work with IT to simplify this process and eliminate unnecessary individuals from access. However, the current software dictates the actual signature process.

5. SALARY RANGE VERIFICATION

Controls play an important role in information systems by ensuring data integrity and reducing the need for manual processes. Due to the lack of proper system controls, the Oracle system does not verify that changes in pay for appointive employees are within the established salary range. Installing salary range data tables will allow the system to ensure employees are not granted pay increases that are outside their respective salary range. With this control enhancement, HR will no longer need to manually verify the appropriateness of employee pay raises.

RECOMMENDATIONS:

- i. HR should work with IT to install the salary range tables into the system.
- ii. HR, IT, and Finance should work together to reduce manual processes or calculations where possible, by implementing system control enhancements.

Management Response:

HR concurs with your recommendation to reduce manual processes and implement automated work methods to improve efficiencies whenever possible.

Salary range controls are currently in place for all classified positions. However, during the installation and subsequent software releases, HR has been unable to implement this feature for appointive and hourly employees. HR has identified this as an issue for resolution through the City's Oracle Priorities Group. It is believed that Release 11.3 will give the additional system control and we are working with IT for resolution.

6. ROOT ACCESS

Root is the ID in the UNIX environment that has unlimited access to all files and directories in the system. Access to this ID should be restricted to only those who cannot perform their duties without the privilege. Three administrators and five computer operators know the root password. Allowing root access to that number of people places system security at risk, decreases

accountability, and provides some employees more access than necessary to perform their job. Tracking changes and security violations is easier when root access is limited to a small group of individuals. The computer operators need only a portion of the functionality of root for system backups, which establishing an administrative ID should provide. Several tools are available that would enable IT to grant employees access to UNIX commands, increase accountability, and provide root privileges without directly logging onto the root account.

IT has a policy requiring that all passwords be changed every 90 days. The root password has not been changed in six months because the system is not forcing password changes. Changing the root password on a regular basis decreases the possibility of an unauthorized user using root access to make system modifications. Further, access to root should be through a strong password that one could not easily guess. This could include utilizing a combination of numbers, letters, symbols, and at least eight characters. Configuring the root password to follow the strictest of password rules helps prevent unauthorized users from obtaining root access to the system.

Authorized users can currently access root from four designated terminals, any City computer, or by using dial-up access to the City. In addition, employees dialing in and logging in maintain the same functionality as their desktop access at the City. To ensure unauthorized users do not gain access to root, and to maintain the highest level of security, IT should allow logging in to root only at the operator's console. Restricting root to the console dramatically decreases the chances of an unauthorized user dialing into the system or logging on from any City terminal to gain root access.

For those employees with root access and those with an account on the production environment, access and functionality is broad. The access permission was setup so any user can read and write their own files, files in their own group, and any file in production. The same is true for the UNIX operating system. The settings for UNIX were never customized for the City and still retain the factory settings. Thus the system is not very secure and there are opportunities for unauthorized users to access the system. Not configuring the system properly places the City at risk from users reading files to which they should not have access.

IT does not currently run any security software against the operating system to check for known security flaws or to ensure the system has approved updates installed. Running security software will enable the administrator to keep current on changes in security, flaws with operating systems, and known bugs. Properly securing the system helps prevent the possibility of unauthorized users gaining access to the operating system and the underlying database that houses the Oracle financial data.

RECOMMENDATIONS:

- i. Root access:
 - a. IT should limit root access to the administrators.
 - b. IT should setup an administrative ID for computer operators or purchase a third party

product to provide only necessary root privileges.

- c. IT policy should not permit direct login to root.
- ii. IT should require users of all systems including root access to change their password at least every 3 months or when a terminating employee could compromise the system. The root password should follow the strictest of password rules.
- iii. IT should restrict root access to the operator console.
- iv. IT should change system access and functionality so that only authorized root users can read and write their files and they should not grant others in the same group the ability to read root's files.
- v. IT should regularly run security tools to ensure the integrity of the operating system.

Management Response:

- i. Root access is limited to those having need to logon as "root". IT will research whether systems operations will allow an alternate logon with superuser privileges and still allow the same tasks to be completed. (Target Completion Date: June, 2000)
- ii. The change of the "root" password in UNIX and the administrator password in NT has implications other than security. Many system services rely on the root or administrator account to perform properly and any changes to passwords must be synchronized throughout those services. IT has, in the NT environment, kept the administrative password restricted, and systems administrators are granted access through different accounts by way of group privileges. Those passwords are changed every 90 days, as recommended. In conjunction with item i, above, we will research if this method can be used in the UNIX environment as well. (Target Completion Date: June, 2000)
- iii. IT agrees that root access should be severely restricted, however cannot restrict it to the operators console only. The Alpha 8400 has a separate console for administrative tasks that also requires a root logon to perform those tasks. We will restrict to select functional responsibilities. (Target Completion Date: June, 2000)
- iv. Access privileges will be reviewed and appropriately restricted. (Target Completion Date: June, 2000)
- v. IT will research tools for checking security and implement viable solutions. (Target Completion Date: June, 2000)

7. WELCOME BANNER

Many computer systems have greetings, welcome screens, and graphics to make computers user friendly. While the screens create a friendlier atmosphere, they can also provide valuable information to unauthorized users and even encourage them to try and gain entry to the system.

The City's banner displays the organization to which the program belongs, the purpose of the machine, the operating system version, and the machine type on the banner. This information invites unauthorized guests to attempt to gain access. Further, a greeting such as welcome is synonymous with inviting someone into your home. Courts have found organizations using welcome banner partially liable for unauthorized visitors. An alternative to "welcome" which could be used is "Only authorized access allowed; violators will be prosecuted" or similar wording.

RECOMMENDATION:

IT Operations should remove any references to machine type, operating system, and purpose from all welcome banners. In addition, greetings such as "welcome" should be removed from these banners.

Management Response:

The NT "splash screens" will be modified and deployed during system replacement or reghosting. (Target Completion Date: March, 2001)

8. PAYROLL TRANSMISSIONS

The City transmits payroll information and funds in various ways to different financial institutions in the form of wires, checks, hard copy reports and automatic transmissions. The City does not currently use Automated Clearing House (ACH) procedures to transmit payroll data and funds. On December 12, 1999, Information Technology transmitted incorrect payroll data to two banks for the pay period ended November 28, 1999. The data had to be recalled and the correct data transmitted. This error occurred due to the City not having controls in place to ensure the accuracy of all electronic data transmissions to banks. Further, IT did not remove the data from previous pay periods to prevent retransmission.

RECOMMENDATIONS:

- i. The Treasurer's Office should establish procedures with IT to verify the data transmission is correct before the City transmits the information to the bank.
- ii. Information Technology should make previously transmitted payroll data inaccessible for retransmission.

Management Response:

i. Finance & Business Services will be moving to full Automated Clearing House (ACH) processing of all payroll direct deposits by the first of fiscal year 2001. This should eliminate the erroneous transmissions as described above. Meanwhile, the Treasurer's

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Office will implement control procedures to minimize the potential for erroneous direct deposit transmissions under the current process.

ii. Within system constraints, IT will secure transmitted files by deleting them or removing them to secured media and placing with Finance for safekeeping. (Target Completion Date: June, 2000)

9. ENCRYPTION

In the payroll process, the system creates two files: one to print out checks and another, the National Automated Clearinghouse Association (NACHA) file, to transfer information and the amount of direct deposits to the various financial institutions. The data in these files exists in a text format and remains easy to interpret. As a result, one can make modifications to both files with tools readily available in the operating system. To make the sensitive data more secure, many organizations scramble the data, which is known as encryption. Without encrypting the payroll data, the City risks modification to the file which could allow unauthorized payments to employees.

RECOMMENDATION:

IT should encrypt the check and NACHA files.

Management Response:

When we switch to bank origination, encryption will be provided as part of the bank provided transmission software. (Target Completion Date: July, 2000)